

# New York State Department of Transportation

## Yellow Flag NB2228W021

By: Ben Colangelo  
Flag Date: April 07, 2022

Superseding Information:  
This flag supersedes: YF NB2197W017

### Structure Information

**BIN: 1065318**  
**Feature Carried:** 278I278IX2M23027  
**Feature Crossed:** 6TH AVENUE  
**Orientation:** 8 - NORTHWEST  
**Region:** 11 - NEW YORK CITY  
**County:** KINGS  
**Political Unit:** City of NEW YORK  
**Approximate Year Built:** 1962  
**Posted Load Matches Inventory :** Yes  
**Bridge Load Posting (Tons) :** Not Posted for Load  
**Primary Owner:** New York State Department of Transportation  
**Primary Maintenance Responsibility:** 12 - State - Subcontracted to another Party  
**Typical or Main Span Type:** 3 - Steel, 02 - Stringer/Multi-Beam or Girder  
This Bridge is not a Ramp  
**Number of Spans:** 322

### Verbal Notification Information

**Person Notified:** Heinz Joachim, P.E.  
**Date:** April 07, 2022 10:00:00 AM  
**Of:** NYSDOT Region 11

### Signature Information

**Signature:** Ben Colangelo, P.E. 068498  
**Date:** June 08, 2022  
**Reviewed By:** Robert Kemp  
**Date:** June 08, 2022

**Attachments:** 7

**Flagged Elements**

Parent Element	Element	Total Quantity	Unit
<b>Span Number : 318</b>			
	PR202 - Steel Column	4	each

**Flagged Condition Description**

Yellow Flag No. NB2228W021

Location: Pier 318, Column C3.

Description: Column C3 exhibits 35% (previously 34%) overall section loss at the base of the column interface with the concrete encasement, with a 2" diameter. corrosion hole above the concrete encasement. There has been no significant changes since the previous inspection.

This Yellow Flag No. NB2228W021 is superseding Yellow Flag No. NB2197W017.

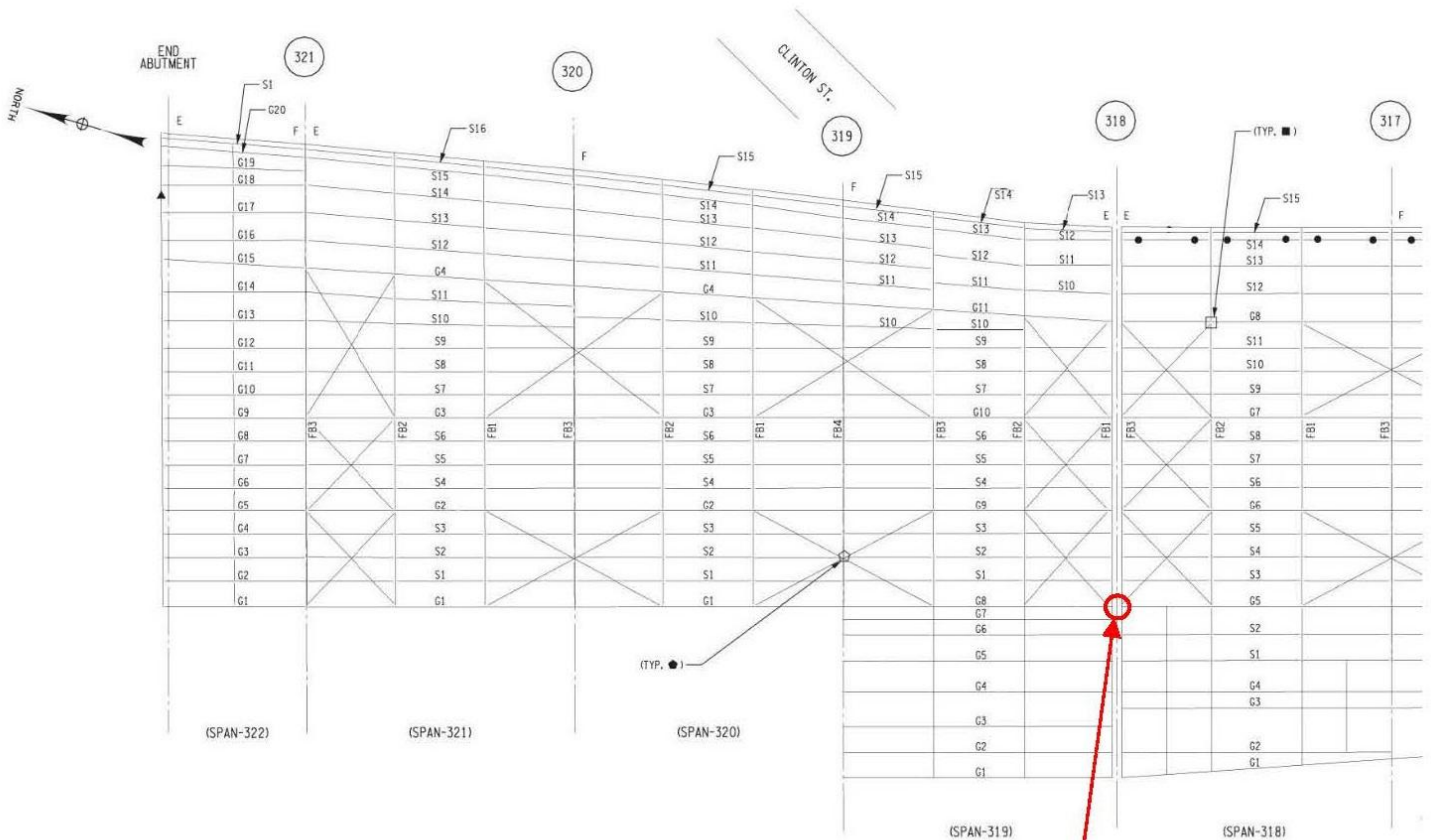
Notes:

- 1.The section loss was measured with a pitting gauge, digital caliper, and D-meter.
- 2.Active joint leakage was noted directly above Column C3 with water seeping inside the column.
- 3.At the right face of the Column C3 there is perforated steel plate with two openings at the bottom. Both openings are very small and have sharp edges, making access to inside of the column difficult.
- 4.Column C3 is located on the wide raised median of Hamilton Avenue and the base was accessed by walking.
- 5.The 2" diameter hole was not included in calculations since it is 3" above encasement.

## Flag Photographs

Photo Number: 1

Photo Filename: SN318 C3\_Framing Plan - 2022.jpg

**LEGEND:**

E - Expansion Bearing Element PR311

F - Fixed Bearing Element PR 313

G - Girder Element 107

S - Stringer Element 113

FB - Floorbeam Element 152. Non-redundant floorbeams require 100% Hands on Inspection.

• - Weld at end of partial length cover plate. Category E' - Weld requires 100% Hands on Inspection.

■ - Gusset plate welded to bottom flange for lateral system requires 100% Hands on Inspection.

◆ - Vertical hanger welded to midspan of stringer bottom flange requires 100% Hands on Inspection

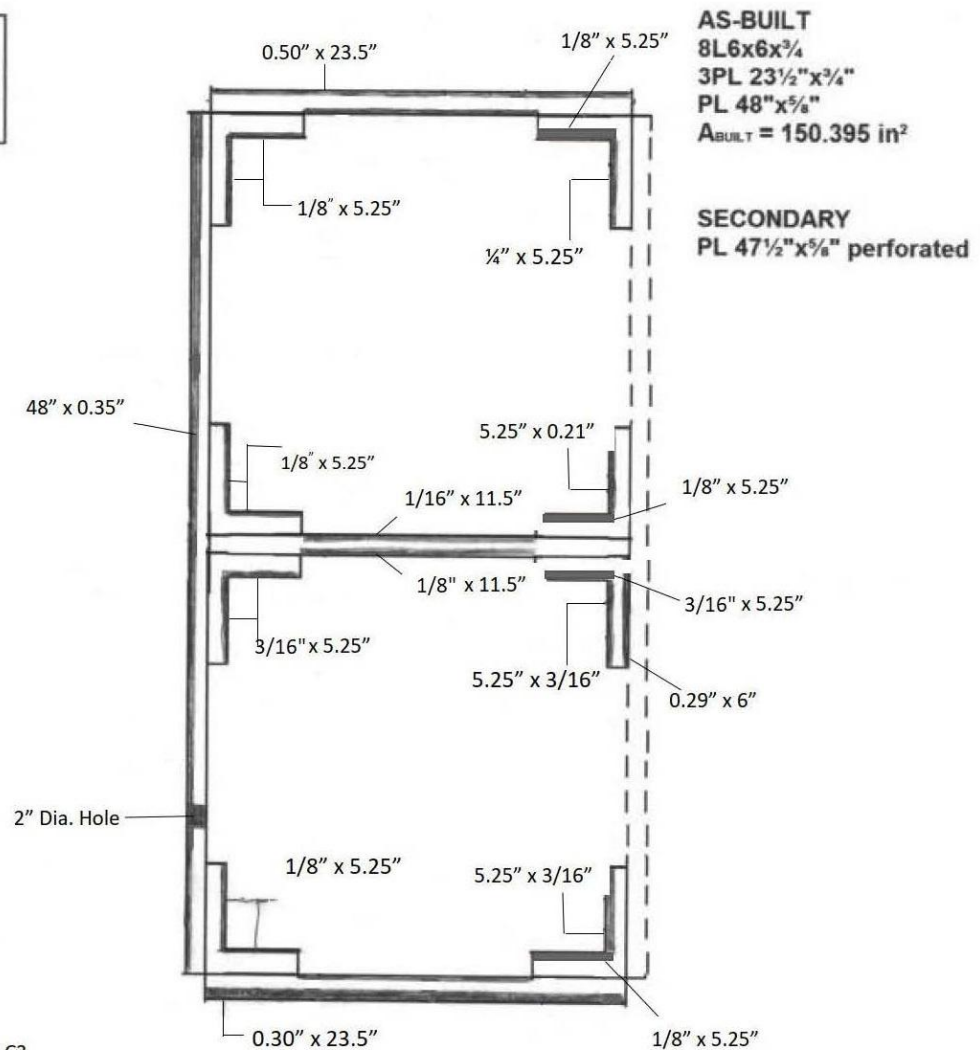
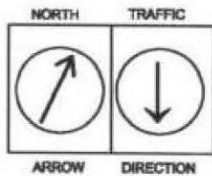
**YELLOW FLAG  
LOCATION**

**No. NB2228W021**

**Attachment Description: SN 318 Pier 318 Column C3 Framing Plan**

Photo Number: 2

Photo Filename: YFNB22~1.JPG



Section Loss – Column C3  
(at Base)

Left Plate –  $0.35" \times 48" = 16.8 \text{ in}^2$

End Plate –  $0.5" \times 23.5" = 11.75 \text{ in}^2$

Begin Plate –  $0.3" \times 23.5" = 7.05 \text{ in}^2$

Inner Plate (Begin) -  $1/16" \times 11.5" = 0.72 \text{ in}^2$

Inner Plate (End) -  $1/8" \times 11.5" = 1.44 \text{ in}^2$

Connection Angles SL –  $(1/8" \times 9 + 3/16" \times 5) \times 5.25" + 0.29" \times 6" + 0.21 \times 5.25" + 0.25" \times 5.25" = 14.98 \text{ in}^2$

Overall Section Loss –  $52.74 \text{ in}^2$

Original As Built area –  $150.4 \text{ in}^2$

Overall Section loss – 35%

$\Sigma$  Section Loss =  $52.74 \text{ in}^2$

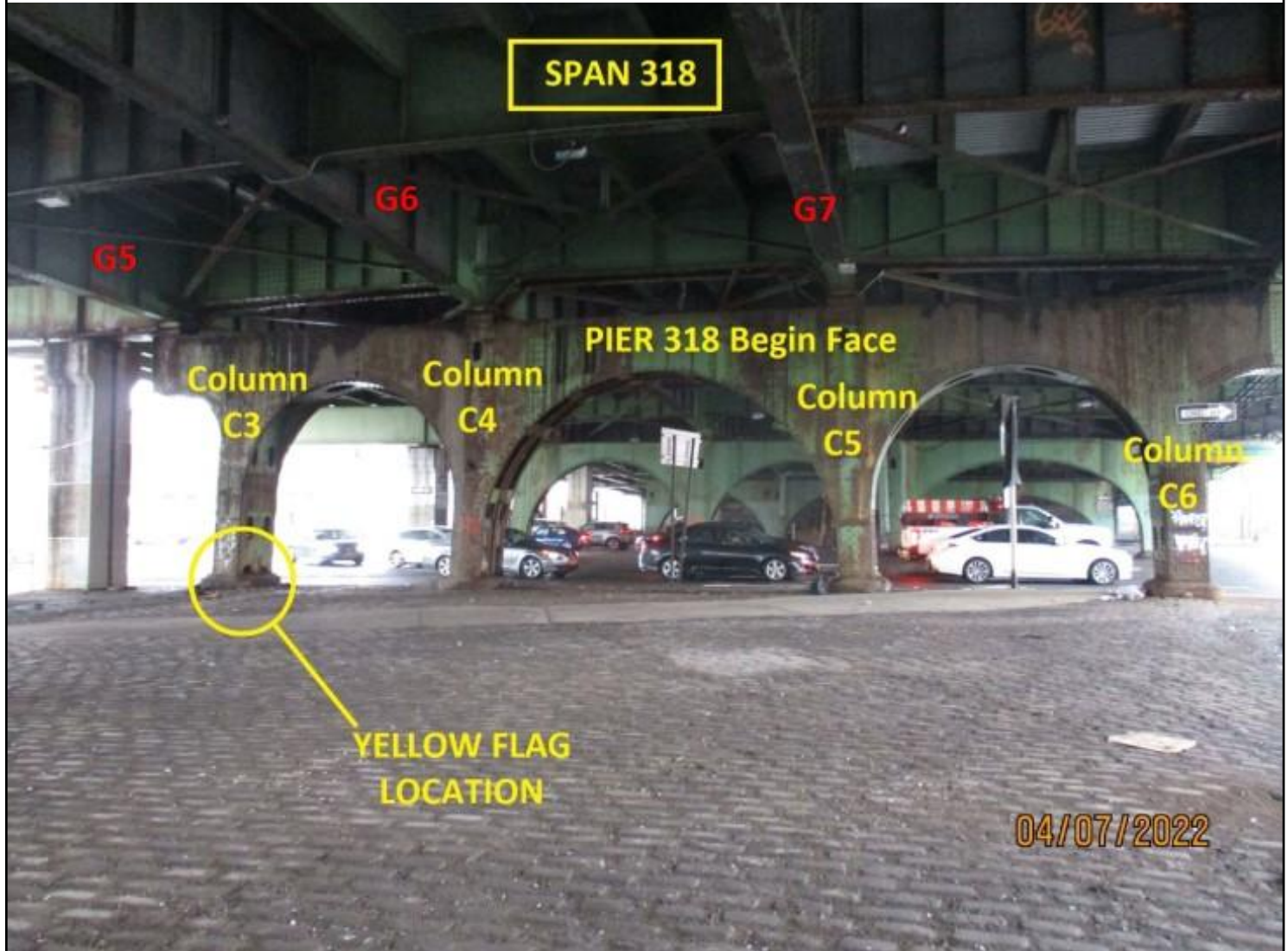
% Section Loss = 35%

Secondary Plate at right face was not included in calculations

**Attachment Description: SN 318 Pier 318 Column C3 Sketch**

Photo Number: 3

Photo Filename: Photo 1-3735 Edit JF -06-08--1.jpg

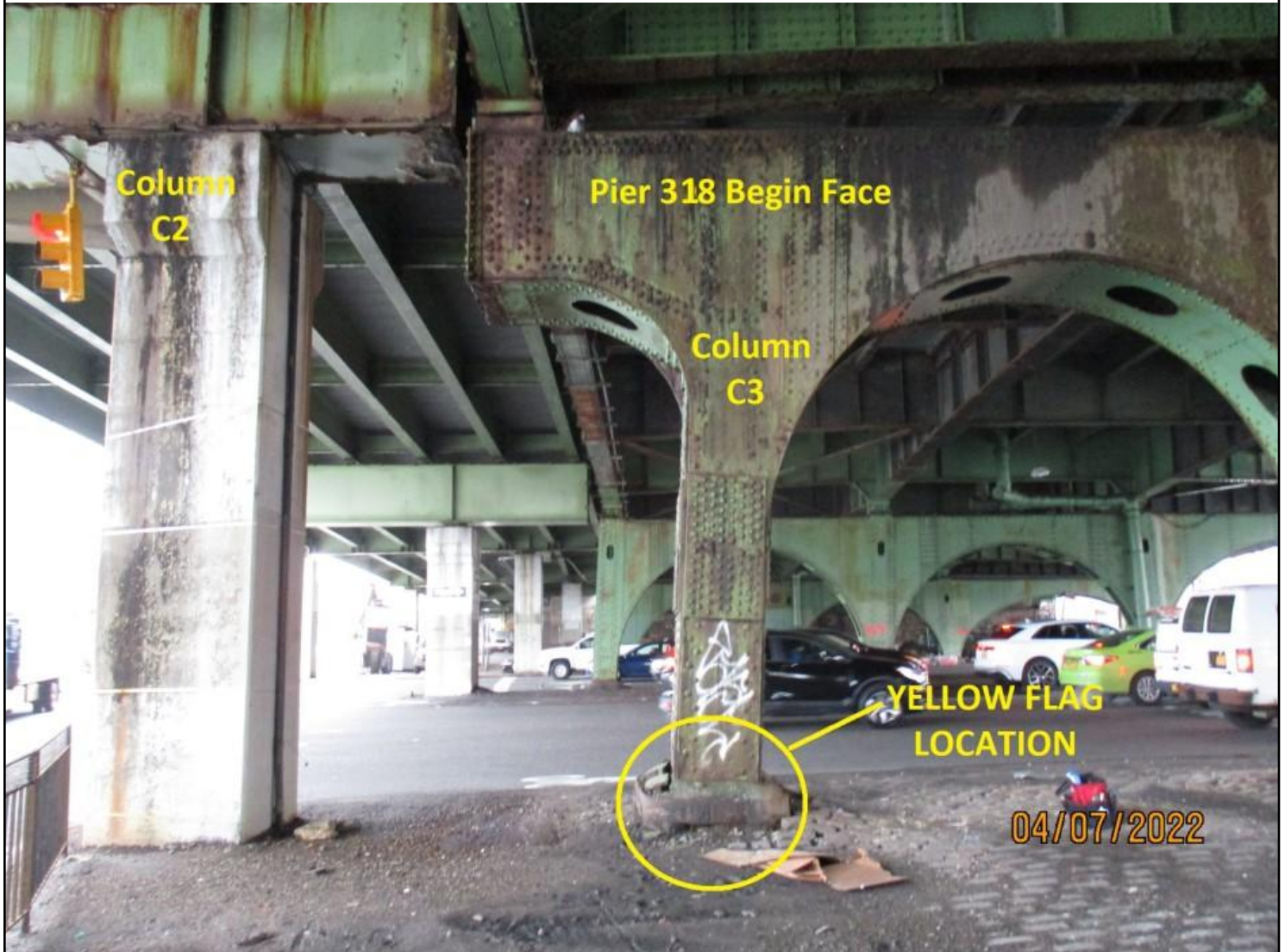


**Attachment Description:** Pier 318 Begin Face. General view of the flagged location. Looking End.



Photo Number: 4

Photo Filename: IMG\_3703-edit.jpg



**Attachment Description:** Span 318, Pier 318 Begin Face. General view of the flagged location. Looking End.



Photo Number: 5

Photo Filename: IMG\_3708.JPG



**Attachment Description:** Span 318, Pier 318 Column C3 Left Face. Heavy pitting and 2" Diameter corrosion hole. Looking Right.



Photo Number: 6

Photo Filename: IMG\_3710.JPG

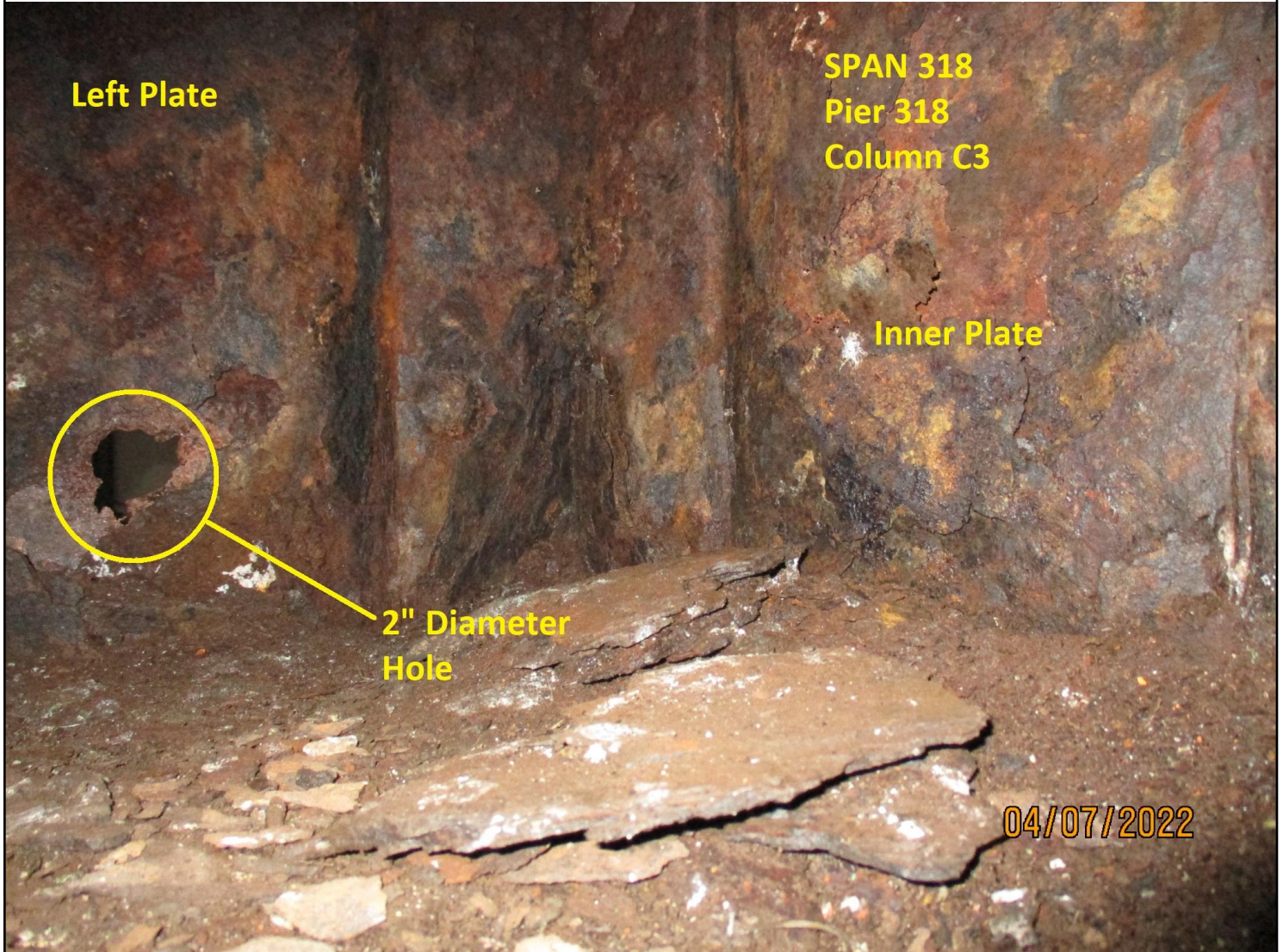


**Attachment Description:** Span 318, Pier 318 Column C3 End and Right Faces. Heavy pitting and signs of active leakage. Looking Begin Left.



Photo Number: 7

Photo Filename: IMG\_3720.JPG



**Attachment Description:** Span 318, Pier 318 Column C3. Close-up view inside the begin portion of Column C3. Heavy pitting and 2" diameter hole. Looking Begin Left.